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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,774	09/30/2005	Salvatore Grimaldi	1509-1045	9938
465 7590 03/10/2009 YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314			EXAMINER ARAQUE JR, GERARDO	
			ART UNIT 3689	PAPER NUMBER
			MAIL DATE 03/10/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/525,774

Applicant(s)

GRIMALDI ET AL.

Examiner

Gerardo Araque Jr.

Art Unit

3689

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-18 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 28 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-85/86)
Paper No(s)/Mail Date 1/8/2009; 2/28/2005
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Inventor's Patent Application
6) ☐ Other: _____

DETAILED ACTION

Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

4. **Figures 1, 2a, 2b, 3, and 4** should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5. **Claims 12 – 14 and 17 – 18** are objected to under 37 CFR 1.75(c), as being improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claims in independent form.
6. In regards to **claim 13**, the Examiner assumes that the term "claim" should be present before "1".

Claim Rejections - 35 USC § 112, first paragraph

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. **Claims 2, 3, 4, 6, 15, and 16** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The Examiner asserts that the concept of using frame data and how it is exactly being handled has not been properly discussed in the specification to allow one of ordinary skill in the art to recognize how it differs from what is already known in the art of data framing and memory paging, i.e. data management and optimization.

Claim Rejections - 35 USC § 112, second paragraph

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. **Claims 2 and 5 – 18** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

11. **Claim 2** recites the limitation "**data frame**" in **line 8 of claim 2**. There is insufficient antecedent basis for this limitation in the claim.

12. In regards to **claims 5 – 8 and 11 – 14**, the Examiner is uncertain on what the applicant is attempting to claim. As currently disclosed, **claims 5 – 8 and 11 – 14** are directed towards a price label. However, the Examiner asserts that the claims fail to properly set forth the structural components required for the price label, but are directed towards a system that uses the price label.

13. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then

narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, **claims 9 and 10** recite the broad recitation **dot matrix display and segment mapped display, respectively**, and the claim also recites **LCD display** which is the narrower statement of the range/limitation.

14. In regards to **claims 12 – 14 and 17 – 18**, the Examiner is uncertain as to what statutory class is being claimed. Specifically, the applicant discloses a system claim (apparatus), but continues to disclose limitations that are directed towards a method claim (process). For example, **claim 1** clearly discloses a **system**, but **claims 12 – 14** disclose an **application** while **claims 17 – 18** are directed towards a **computer program product**. Moreover, **claims 17 – 18** also disclose "by the price label server **or the method**". However, **claim 1** is not directed to a method.

15. **Claims 12 – 14** recite the limitation "**The application**" in the **preamble of the claims**. There is insufficient antecedent basis for this limitation in the claim.

16. In regards to **claim 16**, the Examiner notes that it is unclear on the purpose of the first three steps of the claim since they are just a repetition of what has been claimed in **claim 15**.

Claim Rejections - 35 USC § 101

17. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

18. **Claims 5 – 6** are rejected under 35 U.S.C. 101 because the applicant is claiming a system with no structural components. As best understood by the Examiner from the applicant's specification, the limitations set forth in the claims are directed to software and software, per se, is not statutory. Moreover, the Examiner notes that the applicant is claiming the system by what it does and not by the structure to perform the claimed invention.

19. **Claim 5 – 11** are rejected under 35 U.S.C. 101 because it is claiming two statutory classes. 35 U.S.C. 101 reads that, "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." The applicant is required to clarify the claim in a manner to better distinguish what statutory class is being claimed, i.e. an apparatus or a process. Specifically, the applicant has disclosed an electronic price label (single apparatus), but discloses a system and software to define the electronic price label. Consequently, the Examiner is uncertain whether the claims should be directed towards a single apparatus (electronic price label), a price label system, or software.

20. In regards to **claim 12 to 14**, the Examiner is uncertain as to what statutory class the applicant is attempting to claim. That is to say, what is an application? Is it supposed to be read as "applying"? Is it a software program application? If it is

supposed to be read as "applying" the Examiner asserts that the claims are directed to an abstract concept and are, therefore, not statutory. If it is supposed to be directed to a software program the Examiner asserts that they are considered to be just data and are non-functional descriptive subject matter since they fail to further limit the structural components of the claimed system.

21. In regards to **claims 17 – 18**, the applicant discloses a computer-readable program code, stored on a computer usable medium. The Examiner asserts that unless the data has been executed by a computer or is executable by a computer the program code is not functional descriptive data. The current language of the claims do not define the necessary structural and functional interrelationship between the program the computer so as to permit the computer program's functionality to be realized. However, "computer executable program code" rises to the level of functional descriptive data.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. **Claims 1 – 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over **WO 02/05171 A1**).

24. In regards to **claims 1 – 2, 5 – 6**, **Sundqvist** discloses an electronic pricing system, comprising price label system server adapted to communicate with a price controlling application (PCA) server communicating price label information to price

labels (PLs), characterized in that the system is designed to generate control signals for updating price information related to at least two separate sales items that are both/all logically linked to an individual price label in the system, said price label being designed to receive the control signals and to display the price information for each item separately (**see at least Page 11 Claim 1**); and

wherein a price label is defined through price label type, price label layout script and price label model, characterized in that the system generates and transmits frame data comprising multiple item data related to items that are logically linked to an individual price label in the system and based on the price label layout script, price label model and price label type, the price label being designed to receive the data frame and separate the item data for displaying price information associated with the separate items (**see at least Pages 5 – 6 ¶ 4 – 7**).

Although, **Sundqvist** fails to disclose that the price information is related to at least two separate sales items, the Examiner asserts that one of ordinary skill in the art would have understood that it is still data. In other words, one of ordinary skill in the art would have realized that whether one, two, or three pieces of information is being received it is all data in the end. It is asserted that the invention as disclosed by **Sundqvist** is more than capable of displaying information for two separate sales items since the price labels are designed to receive data and display that data. One of ordinary skill in the art would have found it obvious that if the data being received is for two separate items it would not affect how the price label will receive and display the information.

In essence, the fact that the data is directed to two separate items is considered to be non-functional descriptive subject matter. That is to say, the type of data, i.e. data directed to two separate items and being received by a single price label, does not affect how the price label will receive and display that information. The type of data adds little, if anything, to the claim's structure, and, thus does not serve as a limitation on the claims to distinguish it over the prior art.

Moreover, the Examiner also notes that the specification clearly states that the information being received does not have to display prices for an item, but that, "It should however be noted that although the price label often displays price information it is naturally possible to display other type of information on the price labels, solely or in addition to price information, without departing from the scope of the present information. This other type of information may for example be text, figures, or images." **(see also Pages 3 – 4 wherein Sundqvist discloses a similar statement)**

With that said, the Examiner asserts that the above statement further emphasis that the data is non-functional descriptive subject matter. Further still, the Examiner notes that the only difference between the applicant's invention and **Sundqvist** is that the data being received is in a frame, i.e. frame data **(see Pages 8 – 9 of applicant's specification and Page 9 of Sundqvist wherein an overview of the price changing process is disclosed)**. Given that, it is asserted that one of ordinary skill in the computer arts would have found it obvious that there are various methods of transferring information in a computer network/system in order to avoid page faults. In other words, the concept of frame data or memory paging is an old and well known

practice for computer programmers in order to avoid bottlenecking issues and to expedite the processing of data in a computer system.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have recognized, based on the applicant's disclosure, that because the price labels are designed to receive any type of data the price label system as disclosed by **Sundqvist** would have been fully capable of receiving data for two separate items because, again, it is just data.

Claims 5 and 6 disclose similar limitations and are rejected for the same reasons discussed above.

25. In regards to **claim 3**, **Sundqvist** discloses the electronic pricing system of **claim 1**, characterized in that the system generates frame data containing updating data related to each item linked to the price label, the price label simultaneously updating the price/prices of all items linked to the subject price label (**see the discussion above regarding frame data; see also at least Page 1 – 2 ¶ 4 – 5; Page 2 ¶ 1 – 3 wherein all current information is stored in the Price Controlling Application (PCA) system and wherein the price labels are designed to display the received data, i.e. whenever the prices are changed in the PCA the price labels are designed to reflect that change by displayed the stored information that has been received**).

26. In regards to **claim 4**, **Sundqvist** discloses the electronic pricing system of **claim 1**, characterized in that price label ID determines the number of item specific data fields included in the data frame, and multiple item specific data being assembled with data overhead and simultaneously transmitted to the price label (**see discussion above**

regarding frame data and wherein one of ordinary skill in the computer arts would have known that an ID must be provided in order to determine the number of item specific data fields included in a data frame (frame data) and wherein the received data must be assembled and processed in order to properly display the data).

27. In regards to **claim 7, Sundqvist** discloses the price label of **claim 5**, characterized by separate displays for each item linked to the price label, said separate displays being supplied from common physical components included in the price label **(Obviously included in that although a single price label may be provided the information displayed by the price can be arranged in any manner thereby creating a separate display for each piece of information received by the price label; see also Figures 3a - 3b wherein the price label contains multiple pieces of information each assigned to a separate location or display of the price label, which are being supplied from common physical components included in the price label).**

28. In regards to **claim 8, Sundqvist** discloses the price label of **claim 5**, characterized by a common display for all items linked to the price label, and said price label layout script controlling the display for separating price information related to each item linked to the price label **(see at least Pages 5 – 6 ¶ 4 – 7).**

29. In regards to **claim 9, Sundqvist** discloses wherein the display is a dot matrix display, preferably an LCD display **(see at least Page 3 ¶ 4; Page 5 ¶ 5 moreover, the Examiner asserts that the type of display being used is considered to be non-functional descriptive subject matter since the type of display does not affect**

how the claim is carried out, i.e. receives and displays data, and that one of ordinary skill in the art would have recognized that various displays can be used).

30. In regards to **claim 10**, Sundqvist discloses wherein the display is a segment mapped display, preferably an LCD display (see at least Page 3 ¶ 4; Page Page 5 ¶ 5 **moreover, the Examiner asserts that the type of display being used is considered to be non-functional descriptive subject matter since the type of display does not affect how the claim is carried out, i.e. receives and displays data, and that one of ordinary skill in the art would have recognized that various displays can be used).**

31. In regards to **claim 11**, Sundqvist discloses wherein each item linked to the price label is associated with an item identification code that is stored in the price label and sent to a hand held device upon request (see at least Figure 1; Pages 1 – 2 ¶ 4 – 5; Page 2 ¶ 1, 2, 4; wherein, as best understood by the Examiner, the information can be transmitted to various hardware devices, such as transceivers, hubs, and etc. and wherein one of ordinary skill in the art would have recognized that they can be hand held devices, since it is asserted that the specification has failed to set forth what a handheld device and that the only support of hardware devices can be found in Figure 1 of the applicant's drawings).

32. In regards to **claim 12**, Sundqvist discloses the application of an electronic pricing system and a price label according to **claim 1** for displaying price information on shelf edges (Figures 1 – 7; see at least Page 11 Claim 1; Page 3 ¶ 4 – 5; Pages 5 – 6 ¶ 4 – 7).

33. In regards to **claim 13, Sundqvist** discloses the application of an electronic pricing system and a price label according to 1 for displaying price information related to fruit and vegetable products (**Figures 1 – 7; see at least Page 11 Claim 1; Page 3 ¶ 4 – 5; Pages 5 – 6 ¶ 4 – 7 and wherein the information being displayed is considered to be non-functional descriptive subject matter for at least the reasons discussed above since the type of information adds little, if anything, to the claim's structure).**

34. In regards to **claim 14, Sundqvist** discloses the application of an electronic pricing system and a price label according to claim 1 for displaying price information on menu signs (**Figures 1 – 7; see at least Page 11 Claim 1; Page 3 ¶ 4 – 5; Pages 5 – 6 ¶ 4 – 7 and wherein the information being displayed is considered to be non-functional descriptive subject matter for at least the reasons discussed above since the type of information adds little, if anything, to the claim's structure and one of ordinary skill in the art would have recognized that the price labels can be displayed in any suitable place, including menu signs).**

35. In regards to **claims 15 – 16, Sundqvist** discloses a method for controlling price information displayed by an electronic pricing system which supports price labels that are capable of displaying price information associated with at least two separate items linked to the price label, comprising the steps of (**see discussion above regarding price information associated with at least two separate items):**

-transferring price information and item identification data from a price control application (PCA) server to a price label system server (**see at least Pages 1 – 2);**

- identify all price labels linked to the item (**see at least Pages 1 – 2**);
- for each identified price label: calculate frame data using all items linked to that price label (**see discussion above regarding frame data**), and
- get the price label model, and determine which layout script to be used based on the item presentation form (IPF) from the model (**Pages 5 – 6 ¶ 7; Page 6 ¶ 1**);
- execute the layout script and generate a data frame to be transmitted to the price label (**Page 5 ¶ 6**);
- get communication settings associated with the price label (**obviously included using at least known methods in the art; see also Page 2 – 3 wherein the communication process is disclosed; see also Page 9**), and
- transmit the data frame to the price label using the specified communication parameters (**see at least Pages 1 – 2 wherein the data is transmitted to the price label**).

36. In regards to **claim 17**, **Sundqvist** discloses computer program product directly loadable into the internal memory of a processing unit in a price label system server, comprising the software code portions for performing the steps performed by the price label server or by the method according to claim 1 when said product is run on a price label system server (**Page 12 Claim 9**).

37. In regards to **claim 18**, **Sundqvist** discloses computer program product stored on a computer usable medium, comprising a readable program for causing a processing unit in a price label system server, to control an execution of the steps performed by the price label server or by the method according to claim 1 (**Page 12 Claim 10**).

Conclusion

38. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure can be found in the PTO-892 Notice of References Cited all of which are directed towards electronic price labels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gerardo Araque Jr. whose telephone number is (571)272-3747. The examiner can normally be reached on Monday - Friday 8:30AM - 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janice Mooneyham can be reached on (571) 272-6805. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/525,774
Art Unit: 3689

Page 16

/G. A./
Examiner, Art Unit 3689
2/25/09

/Tan Dean D. Nguyen/
Primary Examiner, Art Unit 3689
3/1/09